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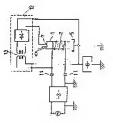
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## (54) HIGH FREQUENCY ION SOURCE

## (57) Abstract:

PURPOSE: To construct a device concerned in a small size by forming a reflex high voltage generating part from a high frequency transformer and a rectifier circuit, and connecting the high frequency transformer between an induction coil and a capacitor either in parallel with or in series to the induction coil. CONSTITUTION: High frequency power from a high frequency power supply 3 is given to an induction coil 2 via a capacitor 11, and a voltage obtained by superposing this output voltage of high frequency power supply 3 over the output voltage of a high voltage power supply 6 is impressed on the induction coil 2. Therein the output voltage of the high voltage power supply 3 is checked by the capacitor 11 and not applied to the high frequency power supply 6 side. A high frequency current given to the induction coil 2 is supplied to a rectifier circuit 14 via a high frequency transformer 13, and the rectifier circuit 14



generates a DC high voltage through rectification of this high frequency current, and this voltage generated is impressed on a reflex electrode 7. The eliminates use of an insulation transformer as well in the circuitry part on the induction coil 2 side as in the circuitry part on the reflex electrode 7 side, and it is only required to incorporate a high frequency transformer in smaller size. Thereby the whole device can be made smaller to a great extent.

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